# W5YI

**National Volunteer Examiner Coordinator** 

## REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Fred Maia, W5YI, Editor, P.O. Box 565101, Dallas, TX 75356-5101

## \* In This Issue \*

Those New Atlas and Dentron Ads
Dallas DX Pioneer - Dead at 82
High Technology Roundup...
Global Positioning System
"Private Eye" Eyepiece Computer
Interactive Television
Fifty Meg Floppy Disk Drives
Eidak Anti-Copy Technology
Fax Fever Sweeps the Country!
Private Television Networks
The Work-at-Home Trend
Digital Radio Service
ICOM, Combat Tested in Nicaragua!
Winter Consumer Electronics Show

Vol. 11, Issue #2

\$1.50

PUBLISHED TWICE A MONTH

January 15, 1989

## **Those NEW Atlas & Dentron Radio Ads!**

Postal inspectors are scruitinizing the activities of a *Michael Harrison* (call sign believed to be *WB2PTI*) and John McNamara both of Long Island in connection with a possible mail fraud carried out against ham radio operators that could total into the six figure bracket! No one seems to know whether the problems are due to difficulties associated with a greatly expanding new business - or are an out-in-out swindle.

## THE "NEW" ATLAS RADIO

The December issue of 73 Magazine (page 111) carries a two-color full-page Atlas Radio, Inc. advertisement which shouts that Atlas is now back in business as an equipment distributor. The ad says that Atlas is now marketing the President 10-meter mobile transceiver at a "you won't be disappointed" price. A smaller ad (on page 104) indicates that price to be \$219.95 - prepaid to all fifty states.

The new Atlas Radio Company is operating out of a post office box in Lynbrook, Long Island, NY. The connection between the old and new Atlas Radio company was made by a statement that the firm was equipped to service "our past models of equipment, 180, 210X, 215X, 350XL, etc." The ad also claimed that Atlas and the Uniden Corporation of America had "joined forces" to bring out the AR/HR 2510 transceiver. That has really caught Uniden's attention!

We got onto this when we recevied a phone

call from one of our subscribers, *Carl Miller/AE6W* of Stockton, California, alerting us to the possible sham. Miller said he ordered the HR-2510 transceiver in November via a credit card. He later talked to John McNamara who said they "were having trouble with credit cards" and to send a check. Miller's December 1st \$219.95 check was cashed on December 6th ...but no ten-meter radio was shipped.

Miller also told us that he knew of at least four other amateurs who had a similar experience. Another amateur, *W6DFG/Clarence Arndt* of N. Highlands, California, runs a 40 meter net and he., too, received several reports of California amateurs complaining about non delivery of radio equipment. "There was one ham in the Bay area that got together with a couple other amateurs and ordered Atlas HR-2510s and never got them. I called the postal inspector and they were very interested in this. Clarence said that if any other amateur has any information they should call (516) 933-2416 or write to the *Postal Inspector*, *P.O. Box 160*, *Hicksville*, *NY 11802-0160 - Attention of Annette Cossaro or Martin Biegelman."* 

The phone number listed in the Atlas advertisements is answered by an answering machine which asks that you leave your name and phone number if you want to purchase the HR-2510. "If you are having difficulty reaching us, you may write Atlas Radio Company, Post Office Box 763, Lynnbrook, N.Y. 11563." The same answering machine voice responds to Dentron Radio Company,

January 15, 1989

Inc. ads.

We also heard rumors but that other well known "out of business" firms had been mysteriously resurrected at addresses on Long Island. One of those firms was *Dentron Radio* operating out of a Post Office Box in neighboring East Rockaway.

#### THE NEW DENTRON RADIO COMPANY

**Dennis J. Had/K8KXK**, of Raleigh, NC, is the founder and original owner of Dentron - a name he coined from his own. He is also a subscriber to this newsletter, so I phoned Dennie to ask him about Dentron coming back to life. Dennie said the name Dentron was federally trademarked and sold to EDI Industries in Texas. He said that although he was aware of the Dentron ads, he was not aware of any connection between EDI and the "new" Dentron.

I gave Dennie the two Long Island phone numbers listed in Dentron and Atlas advertisements and asked him to call them. According to the 516 area code operator, neither Atlas nor Dentron have listed, non-published or unlisted Long Island phone numbers. Dennie called back and confirmed that "absolutely, without a doubt ...no question about it", both voices were that of *Michael Harrison*, a fellow that "cost him some \$14 thousand back in 1979" and uses assumed names. "Someone needs to stop him. I can't understand how any publication would run his ads - most amateur publications know him. Publications have a moral, ethical ...and possibly legal obligation. They want to get paid and should know who the principals are."

Another ham, **Paul Kidd/KK6H** of Point Reyes Station, CA, sent in over \$100 for two Dentron parts and never got the parts. Paul saw the Dentron ad in the September 73 Magazine (page 79) on August 23rd and telephoned the firm. He had a Dentron DTR-1200L amplifier which needed a band switch and high voltage capacitor. Michael Harrison told Paul that he had the part in stock and to send a letter requesting an estimate.

On August 30th, Harrison asked for \$90 for the band switch and \$17 for the doorknob capacitor and to "Please issue your personal check on receipt of this quotation." KK6H sent his check on Sept. 10th. When Paul didn't receive any response, follow up inquiries were sent on October 21st, November 8, 21, and a "final attempt" on November 28th. That letter said legal action would take place on

December 15th if he didn't hear anything - which he didn't. Paul turned the situation over to his post-master.

A letter has now been received on Jan. 6th dated Jan. 1 - from Harrison stating that "We plan to deliver" but that "bandswitches must be custom made..." Kidd/KK6H has no idea if he will ever see the needed parts ...or his money. Paul told us that 73 Magazine has now cancelled all future Harrison advertisements. "December is the last one and QST has never accepted Michael Harrison ads" due to a prior incident that he was involved in.

Harrison also ran ads for several months in late 1988 in the Ham Trader Yellow Sheets. About a year and a half earlier, other ads appeared using one of three Long Island addresses. Those ads were for the acquisition of "rare" and "unused" famous-maker amateur radio gear including the Drake R-7, TR7/A Line, the late T4XC/R4C line and "meatball" (round emblem) Rockwell Collins S-Line. Now there are ads for this same equipment by "Mike of Baldwin" offering it for sale with no specific prices or numbers of models available. Many collectors of rare and expensive radio equipment now believe this to be merely an attractive calling card. Harrison apparently wants to get amateurs on phone to sell them something else. We have not gotten any report that he has sold or even owned any of the advertised vintage equipment.

The January 1989 index of 73 Magazine (page 86) refers readers to page 11 for further information on Atlas. The details on page 11 is that the founder and designer of the old Atlas Radio, Herb Johnson/W6QKI of Oceanside, California, wanted to stress two points: Atlas Radio was liqudated in 1979 and was not sold to any other company and that only one qualified service organization exists for original Atlas Radio equipment and it is not the firm listed in the December new Atlas Radio advertisement. We tried to call Herb at his Oceanside, California, callbook address, but there was no listing. He apparently has moved. One thing for certain. Johnson is disavowing any connection whatsoever with the "new" Atlas ... just as Dennie Had/K8KXK did with the "new" Dentron.

CQ Magazine told us they have stopped accepting advertisements from Michael Harrison because of numerous complaints of equipment sent in for repair but its return not being handled properly. Ad manager, Arny Sposato/KA2TYA said he had

Extra Class amateur radio operator the toluing the present the presented of the presented or suspended. currently licensed 0 EXAMINER? picase under the Wari Report Program? " 30, pro

**National Volunteer Examiner Coordinator** 

Page #3

January 15, 1989

a large file with "quite a number of Michael Harrison complaints ...more than on anyone else."

#### THE UNIDEN RADIO JOINT VENTURE

We were able to reach a spokesman for Uniden, however. They say they have had several inquiries about an inferred Atlas/Uniden joint venture and undelivered mail ordered radios. Uniden said there is no business relationship whatsoever between the Uniden Corporation and Atlas Radio although it is possible *HR-2510* radios could have been purchased by Atlas from a distributor. "A joint venture is not even close to the actual case, however," we were told. Uniden is not aware that any *HR-2510*'s have been sold to Atlas Radio, Inc.

The HR-2510 ten meter transceiver has only been on the market since last March. About 15,000 have already been shipped. Uniden distributors can charge what they want, but their cost from Uniden is approximately \$205. (A \$5 increase went into effect January 1.) A \$219 retail price with prepaid transportation does not allow any distributor profit and Uniden is baffled as to how the radio can be sold that low. "No distributor can have an overstock. The 10-meter radio has been in short supply since day one."

Uniden said they started to hear complaints from people who sent in money for the radio and never got the product around the first week in December. They even got a touching letter from a preacher who saved up his money to buy one from Atlas and never got it. Uniden is very concerned since the advertising clearly infers that Atlas and Uniden are in business together. Federal law regarding mail order is very clear - if you don't send the product within 30 days, you must give the customer an option of a refund or later shipment. The customer has the choice. This apparently was not happening in many cases.

Letters were going out out acknowledging receipt of order - "Thank you for your support - we have sold thousands of units - because of this demand we have a backlog. Please try to understand the most recent position we are in and we are doing everything to deliver your order. You may request a refund." At the bottom of the letter was the notation offering a \$25. rebate for waiting. This rebate check supposedly will be mailed during the month of January. According to Uniden, mailing a \$25 rebate puts the radio below distributor's cost. These letters ap-

parently meet the letter of the law, but they appear to be "buying time."

Atlas Radio has refused to accept credit cards.... "Since these prices are so low, we can not take credit card orders." Only checks on money orders were accepted which were immediately cashed. One amateur ordered the radio from an October Ham Radio magazine Atlas Radio classified ad. His November 1st check was cashed on November 7.

Several complaints have been registered with postal inspectors on Long Island and a criminal indictment could result. Although they refused to go into detail, we also understand that Uniden is taking additional unspecified legal action. They certainly do not want their name or reputation linked to possible mail fraud.

There may be a reasonable answer for all of this, but our phone calls to both Dentron and Atlas were not returned - and many amateurs are very unhappy with the handling they are receiving. If you have any further information on the activities of Michael Harrison, or the "new" Atlas or Dentron Radio companies, we would like to hear from you. We also heard that Harrison may be operating under other company names such as Osborne Computer and Webster Radio which may - or may not - be true.

## DALLAS DX PIONEER - DEAD AT 82

Amateur radio lost one of it's best ambassadors ...and finest operators on Friday, December 30th. *Phil Ashcraft, N5DD*, succumbed to a high voltage shock he received while working on one of his amplifiers.

Phil is generally considered to be the father of the big multi-band/multi-operator DX station. He had the very first one in North Texas in the late 1960's. It was also Phil, then WB5DTX, who put up the first stacked forty meter beams anywhere in the country. He had towers with four 40 meter 4-element beams one on top of the other. He also started the North Texas Contest Club. His contest station attracted worldwide attention.

Phil did not get started in ham radio until he was 62. He had been a manufacturer's representative and did very well marketing air conditioners at a time when refrigerated air was just coming into wide-

National Volunteer Examiner Coordinator

January 15, 1989

Page #4

spread use. After the ham bug bit him, he set about building the strongest station he could assemble. He was in a position to afford the best - the best is what he wanted ...and the best is what he had.

A picture appeared in QST many years ago showing him lowering antennas by helicopter to a 185 foot tower. His antenna farm consisted of several 100 foot plus towers on several acres. His equipment were all Collins S-Lines with maximum power amplifiers. The N5DD 2-meter repeater was on an 800 foot tower which he owned. The Ashcraft setup was awesome!

He changed his call sign to N5DD as a result of the Extra Class docket in the mid-1970's that allowed amateurs to select their own call sign. Phil was also FO0ASJ in Tahiti where he frequently vacationed. He even bought and installed the first repeater in Tahiti so local amateurs could have interisland communication. Phil was an excellent CW operator.

In recent years, Phil DXpeditioned several times from Belize. He went with Mike Rosenfeld/KE5CV. Mike became V31CV ...Phil was V31DX. They carried everything they needed ...towers, beams, amplifiers, coax, radios ...on the plane. (The baggage bill was in four figures!) Phil was a ham's ham ...he was known around the world ...everyone liked him. Phil gave his company, the Ashcraft Company, to his employees when he retired and became a private investor.

On Wednesday, December 29th, Phil was installing resistors on the input of his two linear amplifiers. He was adjusting the driver so it would present the proper impedance to the 4-1000. Somehow, Phil had the high voltage power supply on and got zapped with 4,500 volts at 2 amps when he reached in to the amplifier.

The results of the shock were the worst imaginable. The voltage ripped through his body and out of his ears, his chest and his hands. His ear was burned completely off, his hand half way off ...fingers welded together, wristwatch seared into his flesh, his shirt was incinerated right off his back ...the room was full of smoke. His station is located at an office close to his previous company and Phil was able to make it to the phone to call them for help. He was taken to Parkland Hospital by ambulance ...the same hospital President Kennedy was taken to some 25 years earlier.

The doctors gave Phil a 25% chance of living if they amputated both arms, and there would be a long, painful rehabilitation period. Phil refused the medical assistance and said his time had come. He was given a pain killer and chatted with his friends and relatives. He died the next morning. A chaplain who was also a ham gave the eulogy at the funeral. It ended with: 73 Phil. He is survived by his wife Dee-Dee and daughter Nancy.

## HIGH TECHNOLOGY ROUNDUP

Happenings from the world of emerging electronics

Hitachi has a new on-board five-inch *LCD* color television for cars in Japan. The less-thantwo pound set has 480 lines of horizonal resolution and a diversity tuning system that selects the best signal from four separate antenna inputs. An interlock switch blackens the screen when the car is started although this feature can be defeated for back-seat use. The mobile LCD televison will supposedly do double duty. It can be used as either a regular mobile television, or as a display for satellite-based automotive on-board naviagation systems planned for the future.

Did you know that there are 21 radio beacons in space (the *Global Positioning System*) that can pinpoint your location to within 200 feet! When you drive across the country you will have a computer on board. On a disk you'll have the information on hotels and restaurants, and when you want to stop, you will call up that information. You will be warned if you make a wrong turn.

Electronic road maps are already available in California (\$1,400) which not only tell you where you are, but the best way to get to your destination. An arrow marks your car's position on a green street grid on a 4.5" dashboard monitor. As the car moves, the map display moves with it, rotating as the car turns to match what you see through the windshield. A simple personal computer in the trunk controls the system. Soon to be marketed are radar guided systems to detect and avoid obstacles, communications devices that provide real time traffic information, and smart cruise controls that sense vehicles ahead and maintain a safe distance.

A low-cost video display device developed by MIT-associated scientists is capturing the imagination of electronics manufacturers. Called the "Private Eye," the device is a tiny eyepiece that provides a full, 720 x 280 pixel display for text and

graphics -- a 12-inch, 80 column by 25 line monitor that appears to float in space 2 feet in front of the observer.

Private Eye is manufactured by Reflection-Technology Inc. (RTI) of Cambridge, Mass. It weighs less than 2 ounces and measures 1" x 1.2" x 3.2". It may be clipped to eyeglasses, mounted on a headset or simply held to the eye. Reporters who have tried the product say there is no eyestrain due to the unusual visual effect. Demonstration units evidenced a slight vibration, which the company says will be absent in production models. The vibration has led some analysts to suggest that Private Eye may contain an oscillating mirror. So far RTI has not revealed the details of the design. Power consumption is said to be 320 milliwatts. The company claims that the unit survives drops onto concrete without damage.

The technology was apparently a spin-off of advanced displays used in military aircraft. The unit won't carry a Pentagon-sized price tag, however. It is expected to cost \$100 retail and the price may get down to a "few tens of dollars" in mass consumer quantities. Major applications include portable computer displays, where *Private Eye* could replace ordinary LCD and electroluminescent screens. Such screens often exact high prices in weight, power consumption and especially cost. Another application that may prove popular is in a new type of pocket radio pager, which could display full-text electronic mail to the user. When paired with CD-ROM technology, it could replace cumbersome service manuals for repair technicians.

Private Eye will hit the market next year. RTI will manufacture the units, and will also license the technology to those manufacturers whose requirements will exceed 100,000 units. Reportedly, 100 manufacturers have already signed up, with Japanese computer makers among them. Someday, the Private Eye may be used as a wearable television monitor.

•General Instrument has devised an *up-graded VideoCipher II-Plus* - supposedly pirate-proof - backyard dish scrambling system which will be introduced in the 1990's. A new General Instrument *VideoPal* (cost \$125) allows satellite TVRO owners instantaneous access to additional pay-perview programming. A massive roll-out is planned within the next 3 months. The DBS Center in San Deigo can turn any *VideoPal* on and off in seconds.

And look for home data services - such as stock quotes and news - to be backyard dish delivered to the personal computers of home office workers. The newer satellite receivers contain a data port. Copyright legislation authorizing transmission of broadcast signals to home satellite owners was recently signed into law by President Reagan.

- One way television becomes two-way. J.C. Penny Co. has retained a consulting firm to help determine the future of intractive home-shopping. Penney's Teleaction apparently isn't doing as well as hoped. They have cut their 225 person staff by 25%. Teleaction subscribers buy from such retailers as Neiman-Marcus by using a touch-tone telephone to access various retailers and product codes displayed on a cable channel "catalog". Payment is by customer ID and credit card which is also keyed in. ACTV, scheduled to debut this year, will take a different approach to two-way TV. Viewers answer questions by tapping a remote control device. Still another lap-top gadget allows TV game show fans to compete against each other across the country.
- Chipmaker Intel has acquired GE's *Digital Video Interactive* technology. DVI uses a two-chip set and the real-time memory capacity of CD-ROMs to store enough instructions to provide more than an hour of full motion, full-color video plus high-performance graphics in an interactive mode output to a PC computer. DVI applications-development kits are now in the process of becoming available to software houses. It takes about 18 Mbytes of memory for one second of video. A CD-ROM can store 648 Mbytes only enough for 36 seconds. The secret to DVI is based on the chips ability to supply compression/decompression algorithms compressing data by a factor of 100:1
- Kodak has a new portable video projector that uses LCD (liquid crystal display) instead of conventional three primary color beam technology. The LC500 can project sharp color video images up to 12 feet wide. The unit, primarily used for corporate training and sales promotion, uses a single projection beam which requires no adjustments other than focusing.
- Fifty meg floppy disks! In another development, NEC has developed a vertical recording 3.5-inch floppy disk head using a cobalt-chrome alloy as the coating material. The drive, which can record 50 Mbytes of data on a single disk, will be on

National Volunteer Examiner Coordinator

January 15, 1989

the market in two years. Herzog Research has developed a *new keyboard for typewriters and computers.* The keyboard is split in the middle and each half placed on a diagonal. The new design supposedly matches the angle of typist arms and hands at the keyboard. No retraining is necessary since traditional key assignments are retained.

- Do you remember when floppy disk drives first became available? Blank disks cost up to \$5 each! The going price is now as low as a quarter! Here are some firms that offer very low cost bulk diskettes. Disc International Supply Co. (1-800-233-2477), Royale Data Procuts, Inc. (1-800-544-3472), Diskette Connection (East 1-800-451-1849, Central 1-800-654-4058, West 1-800-621-6221), Disks to Go (NJ 609-456-6996), ME/Micro Center (1-800-634-3478), Frontier Computer Prod. Inc. (PA 215-288-6350), Diskcotech (1-800-523-9681), MEP (1-800-537-1600). *ME/Micro* probably sells more low-cost bulk disks than any other firm. (25 cents each for 5.25" DS/DD, SS/DD in lots of 200 -Sleeves included. 27 cents each: lots of 100 - Lifetime warranty.)
- A new report by Robert R. Nathan Associates for the Electronics Industries Association says by the end of the century (another ten years) high definition television is expected to reach 25% of all U.S. households with larger and more brilliant pictures. HDTV is expected to be available by 1993 and acceptance of HDTV will be immediate. Initial customer demand for HDTV sets will exceed that of color television sets of the late 1960's and of videocassette recorders in the 1970s.
- If you can't fight'em, join'em department. NBC is (1.) launching a new cable CNBC Consumer News and Business Channel, (2.) will not only offer a 1992 Summer Olympics cable package but an Olympic pay-per-view cable service as well and (3.) will roll out SportsChannel America. NBC's SCA will compete with ABC's ESPN. TV viewers watched broadcast television less in 1988 due to increased VCR usage and cable programming.
- Consumers can expect to pay more for cable telecasts in the future as high-priced programming - especially sports - migrates from basic to extra cost status. Cable-industry consulting firm, Rose Media, reports that although only 25 percent of U.S. cable subscribers now have the addressable converters needed for pay-per-view systems, the remaining 32 million cable households should be

getting the new converters by 1991. The firm predicts the PPV television market will be worth about \$2 billion by 1996, up from just \$60 million last year.

- The Eidak Corp. has developed anti-copying technology for pay-per-view events and movies. VCR's are electro-mechanical devices, TV aren't. Although not perceptible to the human eye, the technology constantly varies the televised perframe transmission rate at timing speeds VCRs can not lock on to. Rather than scrambling the signal, Eidak puts an overlay on the transmitted signal. The new anti-copy system might mean that first run films could be marketed to pay-per-view home audiences. While the Eidak System greatly interests Hollywood film makers, movie theatre chains are squirming! Eidak hopes to market three or four copy-proof movies a month. Eventually the technology will allow cable companies to control what can - and can't be copied. Although varying the frame rate constitutes a change in the FCC mandated NTSC signal standard, company officials emphasized that this is being marketed to non-broadcast pay operations not governed by FCC restrictions. You will be seeing the first Eidak protected programming this year.
- What's your FAX number? FAXmania swept corporate America in 1988 and with it came inexpensive overnight courier service and a means for advertisers to electronically pitch their products. Firms by the thousands started accepting orders by FAX ...even restaurants! Two advertising agency executives have formed a "Fax Food" operation that caters to hungry office workers in downtown major cities pressed for time! Instead of calling in orders, workers simply Fax them! Your sandwich is delivered within 30 minutes ...or waiting when you arrive. Another firm sells Fax lists and more Fax junk mail is appearing.

The Fax market reached \$1.2 billion as 785,000 units were sold last year - an 88% increase! One Fax ad uses a reworked Federal Express slogan "When it absolutely positively has to be there in 15 seconds!" Federal Express now has refocused on package instead of document delivery. They tried to capture this market in 1984 with "Zapmail", but it soon became apparent that consumers could Fax documents faster and cheaper themselves. Federal Express dissolved the service in 1986 with losses exceeding \$300 million! Fax units are now selling for as little as \$600 - nobody sold them for less than \$1,000 in 1987. It is anticipated that \$500 Fax units will become available this year.

**National Volunteer Examiner Coordinator** 

January 15, 1989

Page #7

- CAP International, Inc. a marketing research firm projects that within three years, more than half the nation's two million small businesses will have brought facsimile machines into their daily operations. At the 1988 National Office Machine Dealers Association show in Las Vegas, the 32 assorted vendors of Group III fax machines introduced 47 new models, adding to the more than 300 already available! Group III Fax's account for 96% of all facsimile machines and transmit images digitally at about 30 seconds a page. Coming soon! Group IV Faxes which will transmit a page in as little as three seconds!
- A NASA physicist presented a scientific paper to the American Geophysical Union which predicted an "exceptionally large peak in the current solar cycle occuring in 1990 which will shorten life spans of orbitting satellites." Increased ultraviolet radiation makes the upper layers of our atmosphere hotter and thicker increasing satellite drag which in turn decays orbits and shortens their lifetime.
- Did you know that K-mart (and 60 other corporations) have private television networks? Companies simply rent time from one of 17 satellites orbiting the earth, each with 20 to 25 transponders, or channels. Eventually all 2,150 K-mart stores will be wired into their system. K-mart stores exchange credit card/layaway/sales data with their Troy, Michigan, headquarters and hold management conferences and employee training sessions. Most business networks are used for education, corporate news, motivation and new product introductions.

The Federal Express FXTV network broadcasts a daily news/weather and operations update to their 750 offices in North America. J.C. Penney Company merchandise buyers view and select products via satellite from many firms around the country without leaving their Dallas headquar-ASTN (Automotive Satellite Television ters. Network) broadcasts training and automotive industry news to 4,000 car dealerships. DPSN (Domino's Pizza Satellite Network) features time and money saving techniques from any of 32 regional dough-making plants using a truck-mounted transmitter. Domino's is now expanding their network to include their 5,000 pizza parlors. Satellite broadcasting costs \$500 per hour and up - not that expensive when shared by hundreds of offices.

Who has the largest private TV net-

work? It is the Mormon church! The Salt Lake City based Church of Jesus Christ of Latter-Day Saints even own their own satellite through their Booneville International Communications operation. The A. Williams Insurance Company (Duluth, GA) has the second largest system. Private satellite TV networks use smaller satellite receiving stations. These \$5,000 VSATs (very small aperture terminals) allow viewers to talk back to the studio and only measure six to eight feet across.

- You probably have not heard of the French-owned Thomson Consumer Electronics, but TCE also owns the U.S. General Electric and RCA consumer electronics operations and as such, are the largest marketer of color TVs and VCRs in this country. TCE's video/audio research lab is working on a "magneto-optical" CD recorder that could replace magnetic tape recording. Recordable/erasable CDs can be played on any compact disc machine. TCE has joined Philips (Dutch) and Sony (Japan) to establish a recordable-CD standard. Also developed by TCE is a Digital VCR that records on a 1/4" metal tape (2 hour) cartridge.
- Sharp Electroncs has a new "Electronic Wizard" time-and-information manager. The 8-oz. (\$300) folding calculator-like device fits in your pocket or brief case. Plug in IC chips (\$100) add such functions as language translation, to basic features: spellchecker/thesaurus, expense management, calendar, schedule, phone/address book, memo pad, world clock (local time in 2312 cities), memos that appear on up-to-eight line display (can be printed out on a personal computer), two alarms (morning wakeup and appointments), and a password function permitting users to enter confidential memos ...such as your Swiss bank-account number.
- A new California startup operation allows consumers to *customize up to 90-minute audiocassettes* with their favorite musical releases at record stores. You simply select the recordings you want for your tape from a *MusicMakers* catalog featuring 2,000 titles and a *Personic's Jukebox* manufactures your tape on the spot. The machine keeps track of all copying and artists and music publishers are compensated each time a recording is duplicated. Consumers pay 50 cents to \$1.25 for each song on their custom cassette.
- Video Jukebox has received a patent for its viewer-interactive music video system. Cable viewers can select a specific music video to be

January 15, 1989

shown on the Video Jukebox Network. You'll be billed every time you make a request.

- The National Institute of Standards and Technolgy (formerly the National Bureau of Standards) has a new clock. Their previous **atomic clock** counted the oscillations of the nitrogen atom in an ammonia molecule and was accurate to within one second in three years. NIST's new clock is based on the vibrations of cesium atoms and won't lose or gain a single second for 300,000 years! For most of us, a quartz crystal keeps us accurate enough plus/minus a couple of minutes a year.
- Computer guided lawn mowing has been unveiled by Technical Solutions of Sterling, VA. A robot lawnmower follows the pattern of long grass until its sensor detects only blades at a prescribed height! The Lawn Ranger will sell for about \$800.
- Southwestern Bell Telephone is testing a new range of calling options. Call Return redials the last incoming call. Call Cue redials the last outgoing call and can "camp on" a busy signal to put the call through as soon as the line is available. Call Trace can trace any incoming call to its originating number. Call Blocker stops incoming calls from up to three telephone numbers specified by the customer. Priority Call identifies up to three incoming calls (from numbers specified by the customer) with a distincitive ring. The new services are designed to offer residences and business phone users more control and security over their telephones.
- Linus Technologies, Inc. (Reston, VA) has a \$3,000 battery powered high-tech computer that uses low-tech input. Their new computer simulates a pad and pencil. Users write and draw on a display pad with a stylus and then print out text. It is targeted at nurses, doctors and field service workers and other non-computer people who must write a lot.
- Mini Phone, Inc. (Midland, TX) markets sanitary disposable telephones to hospitals! Not only do they stop the spread of disease and infections, they also help hospitals cut maintenance costs and increase their profit on their telephone service. Hospitals are reselling the \$9.00 telephones for \$12.00! Currently, hospitals buy standard telephones for up to \$75 each and rent them to patients.

• The work-at-home trend has been accelerated by modern communications and computer technology. Almost any location with a computer and telephone is now suitable as an office. Some 9.5 million people run their business from their homes or apartments - another 15.5 million are work-at-home employees. Personal computers with internal Fax and modem boards connect workers to the outside world. Fax or electronic mail (MCI Mail seems to be the most universally used) is useful for sending proposals and mail to associates and customers. A proposal put together at 7 a.m. can be on a clients desk by 9 when you arrive. Package drop businesses and executive suite operations provide street-number mailing. (UPS and overnight couriers won't deliver to post office boxes.) Computer-based voice mail accepts incoming calls when you aren't in.

As a subscriber to MCI Mail, you can send or receive from any telex or teletype machine in the world. And MCI has recently started a new service that allows any home computer, without a Fax board to send to, but not receive from, any Fax machine in the world. Much of the material we use in this report comes direct to our computer via MCI Mail. Our user name is FMAIA, MCI ID: 351-1297. Send us a message if you have something for us! You can get on MCI Mail by calling: 1-800-444-MAIL (6245) All you need is a telephone, personal computer, communications software and a 300 or (preferably) 1200 baud modem. MCI Mail, began 5 years ago (on September 27, 1983), now has over 100,000 subscribers who send 2 million messages a month. (Cost is 45 cents to mail a letter of less than 500 characters, \$1 for one with less than 7,500 characters.)

- The Futures Group (Glastonbury, CT) forecasts that prices of **slow-scan picture phones** will drop to under \$200, making them a popular gift item in 1990. Printed books will be sent via phone, using high-speed laser printers (250 pages in 6-8 minutes) and easy to use binding systems.
- The Jerold division of General Instrument plans to launch a *Digital Radio Service* in 1989. Previous attempts of offering music through cable failed because analog quality was comparable to that of AM radio. Cable now has the capability of delivering music whose sound is better than of a compact disc. Dolby/Jerrold DCR (Digital Cable Radio) utilizes 18-bit source material. CD's by contrast are based on a 16-bit system. DCR will offer sixteen

10 or more (Qty.)

Nov... | Ele..... | 2

7月2

Contain all...

Order From:

**National Volunteer Examiner Coordinator** 

Page #9

January 15, 1989

different stations - each carrying a different type of music. Eventually 59 channels will be offered. Subscriber cost will be approximately \$7 per month.

- Camcorder sales are booming! A growing number of amateur video enthusiasts find themselves witnessing news and recording it for their local stations or even for the networks. The results are more dramatic news video ...and extra money for amateurs. NBC news paid \$5,000 for exclusive rights to the Henderson (Nevada) chemical plant explosiion. WNYW-TV paid \$10,000 for a home video of person charged with manslaughter frollicking with scantily clad women at a slumber party. A helicopter pilot sold footage of a jetliner accident for \$7,000. The going rate is a lot less, however. Cable News Network usually pays \$125, NBC News up to \$500 ...most local stations pay less than \$100.
- The December issue of "The Futurist", journal of the World Future Society, describes the Home Theater of the future. "The home theater is developing out of a union of new technology and emerging lifestyles. ... Chairs, sofas and cushions must be arranged so that people can watch the video screen in comfort, and that permanently alters the character of the room. Whatever it was before, the room now is a small video theater. By arranging one room as a small theater, a family can relax with friends while watching TV programs and videotapes together. Such a room can have a very large video screen, a surround-sound system, elegant sofas and cushions, small tables for refreshments... Home entertainment systems seem certain to become more elaborate in the years ahead. screens will grow until actors appear much larger than life; thus increasing the sensory impact of video presentations. No longer limited by the smallness of the screen, a video presentation will overwhelm our senses, driving from consciousness almost all other feelings and thoughts. The huge screens will likely become curved and tilted over us so that we are nearly surrounded by the picture as we recline on chairs, sofas, and cushions. Home video theaters will create an "artificial reality" more intense than reality itself. The home theater will not be used only for viewing professionally produced entertainment and educational products. The room can also be used for teleconferencing with business associates or meeting with distant friends and relatives wherever they may be. Relaxing in its video theater, a family can share its Christmas celebration with relatives who are unable to be physically present." The Futurist also says that we will have more time to

spend in our Home Theater. "In the late 1990s, we should have robots that can perform a respectable amount of housework."

- Today's high technology innovation can become tomorrow's flop! Quadraphonic sound was supposed to have been twice as exciting as stereo, but it never caught on! When the FCC cancelled plans for a quad-broadcast standard ...the FM dial was left filled with broadcast stereo requiring only two speakers. Quadraphonic recordings required special equipment which consumers didn't buy since CBS and RCA championed different formats. Eight track tapes were another bomb ...killed by the arrival of audio cassettes and improvements in FM broadcasting.
- Glasnost comes to the shortwave dial! Jamming of Radio Free Europe ended on December 23. The station had been jammed continuously since it went on the air in 1951. The Soviet Union also stopped interfering with RFE's sister station, Radio Liberty, on November 29th after 35 years.
- It appears that Dennis Patrick will remain as Chairman of the George Bush FCC for the forseeable future although he has confided to friends taht he is anxious to return to the private sector eventually.
- Combat Tested in Nicaragua! The January issue of Soldier of Fortune (page 20) has some nice things to say about ICOM hand held transceivers. A feature article entitled Contra Combat Weaponcraft states that Nicaraguan contra freedom fighters carry ICOM 144-MHz (2-meter) hand-held radios. "The ICOM units offer hundreds of operating frequencies with the touch of a button on the built-in keyboard. Communication integrity is maintained with the daily changing of operating channels and the plus or minus 600 kHz cross-talk capability built into each unit. ...ICOM units seem to hold up well against the constant use and abuse they receive. The contras have proven that it is possible to sustain a dependable and secure communications network with basic over-the-counter type equipment under adverse conditions. ... Overall investment is minimal compared to standard military radios and these consumer units often outperform their expensive milspec counterparts." No high priced ad agency could have said it better! The feature does not mention that the radios are intended the U.S. Amateur Radio Service use. Soldier of Fortune is a military/ mercenary/legionaire oriented publication.

January 15, 1989

## WINTER CONSUMER ELECTRONIC SHOW

An estimated 90,000 attendees from 71 countries descended on Las Vegas for the 1989 International Winter Consumer Electronics Show held January 7-10. If you can imagine 17 football fields filled with thousands of car stereos, VCRs, videogames, home office products, "edu-tainment" (educational/recreational) hardware/software, video/audio components and the accessories that clean, carry and connect to them, then you have an idea of the magnitude of this show. Electronics buyers representing retail companies are the principal target of the sales efforts of manufacturers at CES. More than 1,400 companies filled more than 790,000 square feet of exhibition space.

Probably the most exciting new product category at the CES is known as "personal automation," the use of tiny, hand-held computers as phone directories, appointment schedulers and general life organizers. This category has attracted the interest of the consumer electronic giants such as Casio, which demonstrated its handheld device known as The Boss, which interfaces with a PC at home for programming purposes. Ricoh Corp. is marketing new, tiny (Walkman-sized) facsimile machines and portable copiers that fit inside an ordinary briefcase.

Digital Audio Tape, DAT -- The Copycode proposal was defeated in the last Congress. Apparently a "Son of Copycode" approach is now being studied...this one would use a burst of sound in prerecorded music to prevent its copying. Plans are to present a prototype of the the system to the Recording Industry Assn. of America soon. RIAA has also threatened to sue any manufacturers who ship DAT equipment into the American market. As a result, the only way to obtain DAT recorders and players is through the so-called "grey" market. The machines have been sold in Japan and Western Europe for almost 2 years. The Home Recording Rights Coalition is gearing up to fight Royalty Tax legislation which it expects will be introduced in February or March, starting a new round of lobbying on both sides of the issue...the tax would apply to blank tapes and or recorders.

**EAGLE radios** - Samhill Corp. of NYC is still hyping its Eagle and Eagle II handhelds. Frequency coverage is 440-449.98 MHz band...None of the promotional literature for these products indicates that an amateur license is required. We asked Samhill personnel if any license is required, and

they said yes, Amateur...

RF Parts Co. of San Marcos, CA -- One of the few ham-oriented exhibitors...showed new Diamond PWR/SWR meters, including the new SX-600, which covers 1.8-160 and 140-525 MHz in the same unit. Requires only 1W for SWR.

Multimedia Home Control -- The EIA Communications Electronics Group unveiled a product of considerable work by standards-setting committees in the form of the CEBus...a standard communications and control network for the American Home. The bus controls kitchen appliances, security systems, lights, stereo, VCR, telephone, washing machines, temperature controls and interfaces with home heating controls and PC equipment in the home via cabling, radio, fiber optics, power-line carrier and infrared. Radio Shack demonstrated remote control of CEBus equipment via a portable cellular telephone. All major manufacturers of communications electronic equipment are a part of the project, including AT&T, Panasonic, Marantz, Mitsubishi, RCA, Tandy, RCA, Sony...

Cellular - Cellular telephones were big at the show as manufacturers move into fourth and fifth generation mobile phones and second and third generation portable telephones. The mobile phone is looking more and more like an interim product, as the cost, size and weight of hand-held portables continues to decrease. The Cellular industry will go through a transition period over the next ten years as manufacturers and cellular phone companies try to implement digital radio technologies to overcome the serious capacity limitations of existing FM-based systems.

Video Gaming -- Nintendo dominated the show with a huge number of vendors licensed to produce video games for the wildly popular Nintendo system. Broderbund Software showed Uforce, a completely hands-free interface for the Nintendo game that detects the presence and relative position of the hands in front of a clamshell-like sensor device. The unit enables you to drive an invisible steering wheel, fly a bomber without a joystick or any other physical control, or to deliver knockout blows in video boxing by punching your fist into air.

The above report was sent directly to our computer via MCI Mail right from the CES. It was written on a laptop computer right on the floor of the Las Vegas Convention Center by one of our correspondents and sent over the phone lines to us.